

ABSTRACT

A flexible cannula is revealed, the cannula useful in graspers for the removal of objects such as stones, calculi, concretions, foreign bodies and the like from the urinary, biliary, vascular or other systems. The flexible cannula is made by removing material in a portion of the cannula near the distal end. The material is preferably removed by laser-cutting the cannula in a spiral pattern, so that material continuity and integrity is maintained, while allowing much greater flexibility. The technique may be used on standard graspers and on laser graspers, and is useful as a part of medical devices, such as ureteroscopes, in which a physician enters a body to remove objects. The flexible cannula may also be used with other devices to cut or spear objects for removal, such as for a biopsy.